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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/713,775 11/15/00 JUNG

J 12568-002001

EXAMINER

IM52/0927

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BOSTON MA 02110-2804

YEE, D ART UNIT	PAPER NUMBER
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1742
DATE MAILED:

09/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/713,775

Applicant(s)

JUNG, JAE-YOUNG

Examiner

Deborah Yee

Art Unit

1742

-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bjorkroth (US Patent No. 3,700,851) or Hara et al (JP408246107A).

Each reference discloses martensitic stainless steel examples which meet the claimed composition. See Bjorkroth, alloy B, Table 1 of column 3; and Hara et al, alloys 1, 2, 3, 8, and 11, Table 5 of columns 7 and 8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorkroth (US Patent 3700851) or Hara et al (JP408246107A)Miyasaka et al (JP402217444A) or Kondo(JP404120249A).

Each reference teaches a martensitic stainless steel alloy with constituents whose wt% ranges overlap those recited by the claims. It has been held that one of ordinary skill in the art at the time the invention was made would have considered the

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claimed compositions to have been obvious because overlapping ranges in a composition is considered to establish a prima facie case of obviousness, see *In re Malagari*, 182 USPQ549.

More specifically, each reference discloses examples which closely meet the claimed composition. See Bjorkoroth, Table 1, column 3; Hara, alloys 1,2,3,8, and 11 in Table 5 of columns 7 and 8; Miyasak et al., alloys 9, 25 and 26 in Table 1 on pages 262263; and Kondo, alloys K and L in Table 1 on page 318.

In regard to process claims, note that Miyasaka in the English abstract discloses austenitizing at 920 to 1100C, cooling and tempering at 580 to AC1, and Hara in Table 6 of columns 9 and 10 discloses heating at 950C followed by tempering at 580 to 720C. Although prior art teaches tempering at 580C or higher whereas the claimed process recites 350 to 575C, such would not be a patentable difference since applicant has not demonstrated (e.g. by test data) that the slightly lower tempering temperature is somehow critical and productive of new and unexpected results.

In regard to process claim 7 and 8, prior art method does not specifically teach work hardening by mechanical processing. It is the examiner's position that incorporating a mechanical process step into the prior art method would be obvious and matter of choice well within the skill of artisan depending on the desired known properties sought.

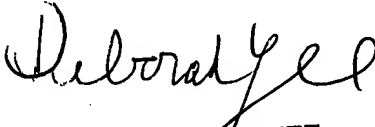
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 703-308-1102. The examiner can normally be reached on Monday-Friday from 6:30 to 4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

dy
September 24, 2001


DEBORAH YEE
PRIMARY EXAMINER